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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,421	07/18/2003	Paul B. Merkel	85538PAL	4963

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT PAPER NUMBER

1774

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,421

Applicant(s)

MERKEL ET AL.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on November 4, 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 9, 10 and 16-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11, 12 and 22-34 is/are rejected.
- 7) ☒ Claim(s) 13-15 is/are objected to.
- 8) ☒ Claim(s) 1-34 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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1. Claims 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 9, 10, 16-21 remain withdrawn from consideration.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 6, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakano et al. (6,919,109). The reference discloses a porous image recording element comprising a support and an image receiving layer which may comprise colloidal silica, hydrophilic binder, which may be polyvinyl alcohol, and fluorosurfactant (see col. 6, lines 37-47, col. 12, lines 28-44, col. 18, line 32-36, col. 20, lines 10-14). Binder is present at 9 to 40% by mass of the coloring agent accepting layer (col. 12, lines 64-67). The

reference is concerned with both gloss and ink absorbing speed and has measurements within the instantly claimed ranges (see col. 29, lines 30-45 and Table 2).

3. Claims 1-8, 11, 12, 22-29 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (6,919,109). Along with the disclosures set forth above, the primary reference also discloses the following: A water dispersible latex may be included in amounts of .1 to 30% by mass (see col. 8, lines 19-21, col. 11, lines 16-19). The particles have a preferred diameter of 50 nm or less. Cross-linking agent may be present, including boron compounds and glyoxal (see col. 14, lines 6-41). The image receiving layer may be applied at pH of 8 or higher (see col. 15, lines 4-21). The amount of cross-linking agent is 1 to 50% by mass (col. 15, lines 22-24). The surfactant is present in amounts of .001 to 2.0% (see col. 19, lines 44-46). The support may be paper or plastic (see col. 20, lines 11-17).

Determination of particle size of inorganic pigment within conventional ranges would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art to determine a specific commercially available colloidal silica as the colloidal silica of the primary reference. It would have been obvious to include silica with a narrow variation in size so that pores formed between particles are of uniform size. Determination of polyvinyl alcohol from those conventionally used in the art, including determination of degree of hydrolysis and viscosity (relevant to the coating properties of the coating composition for the layer) would have been obvious to one of ordinary skill in this art. Determination of a fluorosurfactant from those known and used in the art would also have been obvious. It is noted that fluorosurfactants

such as Lodyne ® are taught for use in an ink jet recording material by Niu et al. (6,689,433).

Determination of coloring agent accepting layer coating weight so that in conjunction with the support the medium has sufficient ink absorption would have been obvious to one of ordinary skill in the art in light of the interest of the reference in ink absorbing speed as set forth above.

4. Claims 1-8, 11, 12, and 22-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (6,919,109) in view of Niu et al. (6,689,433) for reasons of record and for reasons given below.

Niu et al. teach a print media comprising a support having at least one ink receiving layer thereon. The ink receiving layer includes a binder blend and one or more pigments (see the abstract). The reference discusses the importance of drying times at col. 1, lines 20-24 and of gloss at col. 1, line 67 to col. 2, line 8, and specular gloss at col. 29, lines 46-56.

The support may be porous or non-porous (see col. 8, line 34-57). An absorbing layer may be present between the support and the ink receiving layer (see col. 9, lines 4-28). An ink receiving layer 30 is applied to the support (see col. 10, line 63 to col.11, line 2). The layer includes multiple binders including latex binders and polyvinyl alcohol (see col.15, line 49-col.16, line 38, col. 17, lines 40-58). Polyvinyl alcohol may be present and have a degree of hydrolysis within the range instantly claimed (see col. 18, line 18 to col. 19, line 34). Colloidal silica may be included. It does not have to be treated and since silica is inherently anionic, the silica will be anionic. While no limiting

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size range is set forth, a size range of 300 to 400 nm is disclosed (see col. 21, lines 36-65). It would have been obvious to one of ordinary skill in the art to use smaller and relatively uniformly sized particles in order to form a glossy surface.

Fluorosurfactants such as Lodyne ® are included as well in amounts of .02 to 2% by weight (see col. 22, line 45 to col. 23, line 14). pH modifier may be present to control pH within desired values (see col. 23, line 55 to col. 24, line 5). Hardeners, including vinyl sulfones may be present (see col. 24, line 6-21). Coating weights recited by the reference are non-limiting and are within the range of 5-13 g/m² (col. 26, line 28-34).

As taught by the secondary reference, it is known in the art to include additional layers of the same or different composition from the originally described coating layer. It is well within the scope of one of ordinary skill in the art to determine the need to include additional layers in order to produce a medium with sufficient ink absorption capability for the intended function. See col. 27, line 19 to col. 29, line 11 of the secondary reference where such layers, including coating thickness are suggested.

5. Applicant's arguments with respect to claims 1-8, 11, 12 and 22-34 have been considered but are moot in view of the new ground(s) of rejection.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz
January 20, 2006



PAMELA R. SCHWARTZ
PRIMARY EXAMINER